

**U. S. ENVIRONMENTAL PROTECTION AGENCY  
FINAL POLREP**

**SUBJECT:** SDS Medical Waste Site - Med/Waste Inc.  
Incinerator Facility  
100 Mill Street  
Hampton, SC

**FROM:** Carter Williamson, OSC

**TO:** Bob Bittinger, EPA R4 Emergency. Resp. Ctr. - (For Distribution)  
Lucus Berdesford, SCDHEC  
Henry Webb, EPA EAD  
Sherryl Carbonaro, Community Relations Coordinator  
Site File

Period covered: August 2002 to January 2003

**I. SITE INFORMATION**

**Site Name:** SDS Medical Waste Site - Med/Waste Inc.  
Hampton, Hampton County, South Carolina

**Site No:** A46Y

**CERCLIS No:** SCN000407415

**Response Authority:** CERCLA

**State Notification:** Yes

**Personnel on Site:** EPA: 1, ERRS: 7, START: 1

**NPL Status:** Non-NPL

**Completion Date:** January 2003

**Start Date:** 08/19/02

**Delivery Order No:** F4-004

**DO Amount:** \$550,000.00

**Contractor:** WRS, Inc.

**TDD Amount:** \$68,000

**Contractor:** Weston Solutions

**II. BACKGROUND**

The Med/Waste Inc. Medical Waste Incinerator Facility is located at 100 Nix (Mill) Street, in Hampton, Hampton County, South Carolina. The Med/Waste Inc. Incinerator/Transfer Station was involved in the incineration and transfer of medical and other specialized waste from hospitals in North and South Carolina. Med/Waste Inc., was one of the largest medical waste management companies in the Southeast before closing operations and filing for bankruptcy. Med/Waste Inc., was placed under an Administrative Order (AO) by the South Carolina Department of Health and Environmental Control (SCDHEC) in February 2002. Violations cited under the AO included problems with emissions monitoring equipment, improper storage of ash, and numerous containers and bags of infectious waste stored haphazardly at the facility.

In February 2002, SCDHEC took control of the property and mobilized their contractor, Earth Tech, Inc., to secure the property and assess the hazards. Due to lack of funding, SCDHEC could not complete the removal action. The SCDHEC then referred the Site to EPA's Emergency Response and Removal Branch for action.

At the request of the SCDHEC, On-Scene Coordinator John Nolen was dispatched to the Site on February 21, 2002 to investigate and address medical waste stored in tractor-trailers, a large ash incineration pile, untreated waste-water and drum storage on-site. No release had occurred on-site, however, at that time, EPA was very concerned over the potential for human exposure and environmental harm from the leaking medical waste and airborne contaminants from the exposed ash pile. Several Above Ground Storage Tanks (ASTs) contained waste-water with elevated levels of metals. This waste-water poses a threat to the surrounding environment if an accidentally released occurred into nearby ditches and streams.

The SCDHEC referred the Site to the EPA's ERRB to be evaluated for possible removal eligibility. SCDHEC funded the transfer and removal of the tractor-trailer rigs that held raw medical waste that were stored on-site at Med/Waste Inc.

Since the company closed for operation and filed for bankruptcy protection, the remaining ash and waste-water was abandoned on-site in an unsecured manner. As a result, Med/Waste Inc., had accumulated approximately five thousand tons of incinerator ash and 150,000 gallons of untreated waste-water. The waste-water was located in several concrete lined, open top ASTs and beneath 3 large incinerators. Prior to the closure of the facility, the company was to treat the waste-water and then release the treated waste-water into an on-site storm drain that transferred the treated waste-water to the local POTW.

During a removal assessment conducted by ERRB, two environmental samples were collected of the ash material and analyzed for TCLP and total metals, pesticides and cyanides. Although TCLP analysis of the specified contaminant concentration did not show any leaching characteristics, the total metal analysis confirmed an exceedance of the Preliminary Remediation Goals (PRGs) for Industrial Soil for total chromium. Chromium was detected at 2940 ppm where the PRG for total chromium is 450 ppm.

One water sample was collected and analyzed for BOD, COD, TSS, fecal coliform, oil, grease, TOC and metals. The analytical data indicated elevated levels of metals in the water samples that exceed numerous Maximum Contaminant Levels (MCLs) and Drinking Water (DW) standards for the compounds arsenic, barium, cadmium, chromium, lead and nickel. The waste-water and ash pile contained hazardous substances that posed a threat to the environment.

Med/Waste Inc., conducted the transfer and incineration of medical, biological and specialized waste. As such, and as a by-product of this process, the ash-waste material stockpiled on-site contained elevated levels of arsenic, cadmium, chromium, lead and barium. The ash pile and waste water are unsecured and are exposed to the environment. With limited storage capacity available for additional storm water, a heavy rain could erode the ash pile and send the contaminated storm water into nearby surface water.

When the ERRB responded to the site to conduct a time-critical removal action, there was 5,000 tons of incinerator ash waste, 150,000 gallons of untreated waste-water and approximately 93 polyvinyl and steel drums of corrosive materials such as aluminum chloride, sodium hydroxide, muriatic acid, hydrogen peroxide and sodium hypochlorite on-site. These chemicals were secured, some utilized in the waste water treatment processes, and the rest transported off-site for proper disposal.

The Med/Waste Inc., Site is not currently on the National Priority List (NPL) nor is it a candidate for the NPL.

### **III. ACTIONS TAKEN**

1. All contents/ash waste contained in the hoe rams, incinerators, sump and staging areas has been removed. 1600 tons of ash material and 100,000 gallons of wastewater have been transported off-site to a subtitle D landfill.
2. All drummed material (approximately 275 drums) that were staged in the tipping room at the front of the SDS complex were sampled, analyzed, placed into distinct waste streams and transported off-site to an EPA accepted facility. Contents of these drums, stored in the northwest side of the material tipping area, contained aluminum chlorohydroxide, waste flammable liquids and solvents, hydrogen peroxide, sulfuric acid, aluminum chloride and an assortment of waste oils and oil based paint. All emptied drums were rinsed out on-site and left on-site. All non-hazardous (trash and paint filters) substances have been sent to off-site disposal.
3. The OSC conducted numerous interviews with The Hampton County Guardian to provide the community and the Hampton City Council with information on the removal action conducted at SDS Medwaste in Hampton. Stories ran in the weekly edition of that newspaper.
4. ERRS contractors pressure washed the floor underneath and surrounding the three dual hearth incinerators and removed all remaining sharps including scissors, ash, metal bone replacement parts, rubber tubing from IVs, hospital gowns, and unbroken vials. The contents were removed from the incinerators and into a roll off box to minimize the need to decontaminate the interior of the vacuum truck's storage container.
5. All water treatment equipment, tanks, pumps and piping have been dismantled and removed from the facility. All heavy equipment contracted by WRS has been transferred back to the rental facilities and all staging areas have been secured. All personnel have demobed from the facility.

### **IV. DISPOSITION OF WASTE**

All completely incinerated material, partially incinerated material, trash, paint filters located in drums, unburned pharmaceuticals, personal protective equipment (PPE), and investigation derived waste (IDW) were loaded onto bulk dump trailers and transported off-site by Baird Trucking. The waste was classified as non-hazardous and disposed of in a Subtitle D facility located at the Hickory Hill Landfill, in Ridgeland, South Carolina, operated by Waste Management, Inc. A total of 1,526 tons of bottom ash material, sump solids, drum contents, unburned pharmaceuticals, PEE and IDW were removed from site. Of that total 804 tons of dry ash material was removed from the ash storage pad area and storage bins. The remaining 721 tons removed were composed of the ash bottom wastes located in the sump area,

solidified ash material, sand filter material used in the grit tank, spent carbon from the carbon vessel and process piping from the wastewater treatment system.

A total of 2,824 gallons of bulk liquids including oil, water, and solvents were vacuumed out of drums and sent to OMNI-GRR located in Sumpter, South Carolina. Thirty-seven (37) gallons of hazardous waste in drums that contained caustics, aluminum chloride, and klaraid was sent to Permafix of Michigan located in Brownstown, Michigan. Ten (10) gallons of hazardous waste in drums containing sulfuric acid, and hydrogen peroxide was sent to the Permafix facility in Orlando, Florida. Non-hazardous waste totaling 133 gallons of filters, sludges, polymers, and treated boiler water was sent to Onyx in Valdosta, Georgia. Eighty-four (84) boxes of biomedical waste were sent to BMWNC located in Mathews, North Carolina.

**V. CONTRACTOR INFORMATION AND ESTIMATED COSTS - (Approximated costs)**

<b>Contractor</b>	<b>DO number Contract Number</b>	<b>POP Start</b>	<b>POP End</b>	<b>DO Amount and allocated</b>
WRS Inc.	F4-004 68-S4-02-06	08/19/02	01/01/03	\$550,000 <b>Spent - \$439,000</b>

<b>Contractor</b>	<b>TDD number</b>	<b>POP Start</b>	<b>POP End</b>	<b>DO Amount and allocated</b>
Weston Solutions	4W-02-08-B-002	08/19/02	12/01/02	\$68,000 <b>Spent - \$67,323</b>

<b>EPA Estimated cost</b>	<b>EPA OSC</b>	<b>POP Start</b>	<b>POP End</b>	<b>EPA funds allocated</b>
\$83,000	Carter Williamson	08/19/02	03/21/03	\$16,000

\* Costs shown are based on information available at the time this report was prepared. These figures should not be used to support or dispute any legal action regarding this removal.

**VI. ROSTER OF AGENCIES/ORGANIZATIONS**

<b>Org/Agency, address</b>	<b>Primary Contact</b>	<b>Phone Number</b>	<b>Role/Activity</b>
U.S. EPA 61 Forsyth Street, 11 <sup>th</sup> Floor Atlanta, Ga. 30303	Carter Williamson	404/562-8742	On-Scene Coordinator
WRS Infrastructure and Environment. Aka - WRS, Inc.	Joe Gunn	813/684-4400	Project Manager
Weston Solutions, Inc. Suite 420, 100 Peachtree Street, N.W. Atlanta, Ga 30303	Jennifer Trombley - Field Contact Stacy Kowalski -Office point of contact	404-527-7000	START-2 Project Manager
South Carolina Department of Health and Environmental Control (SCDHEC), Columbia, SC	Lucus Berdesford	803-896-4071	State Contact

